

AMERICAN INSTITUTE  
OF  
CONSULTING ENGINEERS, INC.

1923

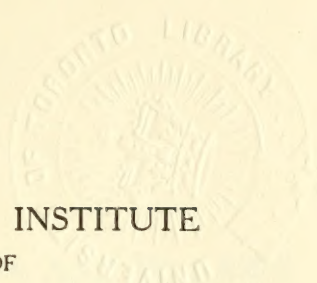


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AMERICAN INSTITUTE  
OF  
CONSULTING ENGINEERS, INC.

November 21, 1913

Founded December 12, 1910, as successor to the  
Association of Consulting Engineers,  
Organized May 2, 1905

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CONSTITUTION AND BY-LAWS  
AND LIST OF MEMBERS

OF

AMERICAN INSTITUTE OF  
CONSULTING ENGINEERS, INC.

1923







CERTIFICATE OF INCORPORATION  
OF  
AMERICAN INSTITUTE OF CONSULTING  
ENGINEERS, INC.

Filed and recorded in the office of the Secretary  
of the State of New York, November 21, 1913.

MITCHELL MAY,  
*Secretary of State.*

STATE OF NEW YORK,  
COUNTY OF NEW YORK, ss:

We, the undersigned, desiring to form a corporation pursuant to the provisions of the Membership Corporation Law of the State of New York, do hereby certify and declare: That we are all of full age, that two-thirds of us are citizens of the United States, and all of us are residents of the State of New York.

We do further certify and declare as follows:

I. That the objects for which the corporation is to be formed are: The promotion of ethical standards and practical efficiency in all branches of Engineering as a profession; to increase the usefulness of the profession to the public at large.

II. The name of the proposed corporation is AMERICAN INSTITUTE OF CONSULTING ENGINEERS, INC.

III. The territory in which the operations of said corporation are to be principally conducted is the State of New York and the other states and the territories of the United States.

IV. The principal office of said corporation is to be located in the City, County and State of New York.

V. The number of the Trustees or Directors of said corporation shall be nine.

VI. The names and places of residence of the persons to be Trustees or Directors of said corporation until its first annual meeting are:

Frederic A. Molitor, 35 Nassau St., New York.  
John E. Greiner, Fidelity Bldg., Baltimore, Md.  
Charles C. Schneider, Pennsylvania Bldg., Philadelphia, Pa.

Edward C. Shankland, Rookery Bldg., Chicago, Ill.

Frank J. Sprague, 165 Broadway, New York.

Henry Holgate, 9 Victoria Sq., Montreal, Can.

Daniel E. Moran, 55 Liberty St., New York.

Charles Soosmith, 71 Broadway, New York.

Alfred Noble, 7 East 42d St., New York.

VII. The annual meeting of said corporation shall be held on the third Tuesday of January in each and every year.

IN WITNESS WHEREOF we have executed and acknowledged this certificate in duplicate this 13th day of November, 1913. In the presence of:

W. A. OPENHYM,	{	ALFRED NOBLE,
		JAMES B. FRENCH,
		EUGENE W. STERN,
		HENRY W. HODGE,
		FREDERIC A. MOLITOR.

SILAS W. SOOLFREY,	{	CHARLES SOOSMITH,
		FRANK J. SPRAGUE,
		ALEXANDER C. HUMPHREYS,
		WILLIAM J. WILGUS.

# CONSTITUTION OF AMERICAN INSUITUTE OF CONSULTING ENGINEERS, INC.

Incorporated under the laws of the State of New  
York, Nov. 21, 1913. Amended at Adjourned  
Annual Meeting held on Sept. 17, 1919.

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## ARTICLE I

### NAME AND OBJECT

*Section 1.* This Corporation shall be called AMERICAN INSTITUTE OF CONSULTING ENGINEERS, Inc.

*Section 2.* Its objects are: to promote ethical standards and practical efficiency in all branches of Engineering as a profession, and to increase the usefulness of the profession to the public at large.

## ARTICLE II

### GOVERNMENT

*Section 1.* The government of the Institute shall be vested in a Board of Trustees, to be known as The Council of the Institute, consisting of nine members elected at the Annual Meeting as provided by the By-Laws, together with the three living past-presidents whose terms of office expired most recently, and who are not, at

the time, members of the Council by election.

## ARTICLE III

### MEMBERSHIP

*Section 1.* Membership in the Institute shall be limited to engineers in any recognized branch of the engineering profession who are chiefly engaged in consulting engineering work, and have a well-established practice therein, independent of ordinary or salaried professional employment, and have attained a recognized position of honorable character and high reputation in the profession.

Engineers employed upon or connected with contracting or promotion, except in a strictly advisory or supervisory capacity where compensation is for professional services and not contingent upon profits, shall not be eligible for membership.

*Section 2.* A candidate to be eligible, must be at least 35 years of age, must be a member in good standing in one or more of the four leading national engineering societies—Civil, Electrical, Mechanical, or Mining—or must have been an Engineer Officer of the United States Army, not below the rank of Captain, or an Officer of the United States Navy, not below the rank of Lieutenant, Senior Grade.

*Section 3.* Any member ceasing to fulfill the necessary qualifications may be

dropped from the roll of membership by the Council.

## ARTICLE IV

### AMENDMENTS

*Section 1.* This Constitution may be amended by a three-fourths affirmative vote of all the members of the Institute expressed orally or in writing at the Annual Meeting of the Institute, provided that a notice setting forth the proposed amendment or amendments with the reasons therefor and any known objection, shall have been sent to each member at least one month prior to said Annual Meeting.

# BY-LAWS

Amended April 20, 1917

Amended January 13, 1919

Amended January 16, 1922

## ARTICLE I THE COUNCIL

*Section 1.* The nine members of the Council first elected shall consist of three classes of three members each. The first class shall serve for three years, the second class for two years, and the third class for one year from the date of the first annual meeting; and thereafter three members shall be elected to the Council by the Institute each year to serve three years and to supply the places of the class retiring. No member of the Council shall be eligible for re-election thereto until at least one year shall have expired after his last term of office.

*Section 2.* Election to the Council shall be by ballot. A plurality vote of the entire membership of the Institute shall be required to elect. Vacancies occurring in the Council shall be filled, until the next annual election, by vote of the remaining members of the Council.

*Section 3.* Any member of the Council who shall absent himself from three consecutive meetings thereof, unless he shall present satisfactory excuses, shall be deemed to have resigned as a member of the Council

and shall cease to be a member thereof. He may, however, be reinstated by a majority vote of the Council.

*Section 4.* In October of each year the Council shall appoint a nominating committee to consist of three members of the Institute who are not members of the Council. At least six weeks before the annual meeting such committee shall advise the Secretary of its nominations of candidates for the vacancies in the Council to be filled at the next annual meeting, and these nominations shall be forthwith mailed by the Secretary to the members of the Institute.

Other nominations may be made in writing if signed by at least fifteen members and delivered to the Secretary at least three weeks before the annual meeting, and these nominations shall likewise be forthwith mailed by the Secretary to the members of the Institute.

*Section 5.* The Council shall not incur any debt or liability exceeding the net assets of the Institute.

*Section 6.* The Council shall elect a Committee on Admissions, to consist of three members of said Council.

*Section 7.* The Council shall elect annually, from among its members, an Executive Committee of three, and may delegate to this Committee power to transact, when the Council is not in session, business not



affecting the established policy or procedure of the Institute. The Executive Committee shall keep full Minutes of each of its meetings and report the same to the next meeting of the Council.

## ARTICLE II

### OFFICERS

*Section 1.* The officers of the Institute shall be a President, a Vice President, a Secretary and a Treasurer. The President and Vice President shall be elected annually by the Council from among its elected members, and shall hold office until their successors shall have been elected. The Secretary and Treasurer shall be appointed by, and hold office during the pleasure of, the Council, and the offices of Secretary and Treasurer may be held by the same person.

*Section 2.* The President, or in his absence the Vice President, shall preside over all meetings of the Institute and of the Council. In the absence of both, a temporary presiding officer shall be elected from among the members present.

The President shall appoint all committees of the Institute and of the Council, unless it is specially provided or ordered otherwise. He shall exercise a general supervision over all of the affairs of the Institute.

*Section 3.* The President shall be a member, ex officio, of all committees, but he

shall not be counted in determining a quorum. In the absence of the President, the Vice President may serve in his stead.

*Section 4.* The Secretary shall keep a complete record of all proceedings and correspondence of the Institute and Council. He shall send notices of meetings by mail to members of the Institute or Council as the same may be required. He shall keep a roll of the members of the Institute, and shall perform all other duties usually appertaining to the office of Secretary.

*Section 5.* The Treasurer shall perform the duties usually assigned to this officer, and shall give bond, if required by the Council. He shall make payments only for bills properly approved by the Council, and all checks shall bear the signature of the President or Vice President in addition to that of the Treasurer. In the absence or incapacity of the Treasurer, his power to sign checks may be delegated by the Council to one of its members.

*Section 6.* Contracts and formal documents shall be signed by two officers of the Council, or by two of its members whom it shall designate.

### ARTICLE III

#### MEMBERSHIP, ADMISSION AND EXPULSION

*Section 1.* The qualifications for membership are defined in Article III of the Constitution.

*Section 2.* A candidate for membership must be proposed by a member and seconded by at least three other members of the Institute in personally signed letters addressed to the Secretary.

*Section 3.* A candidate shall give a concise account of his professional experience and training in such form as may be desired by the Council.

*Section 4.* The name, address and occupation of a candidate, and a statement of his qualifications, together with the names of his proposer and seconders, shall, after the consideration thereof by the Council, be sent to each member of the Institute at least one month previous to the date set for his election with request for confidential information concerning said candidate.

*Section 5.* The election of members shall be by ballot of the Council. Nine votes must be cast to constitute an election. Eight affirmative votes shall be necessary to elect. A rejected applicant shall not be reconsidered for membership until at least one year after the date of his previous rejection.

*Section 6.* An elected candidate shall be duly notified and shall subscribe to the Constitution and By-Laws of the Institute within three months after his election. If he does not so subscribe, his election shall be void.

*Section 7.* All proceedings of the Coun-

cil or any part thereof, acting as a Committee on Admissions, shall be privileged and confidential.

*Section 8.* If in a written and signed communication addressed to the Council, any member of the Institute shall be charged with unprofessional conduct, or with conduct detrimental to the objects or interests of the Institute or in violation of its Constitution, By-Laws, Code of Ethics, or Rules and Regulations, the Council shall consider the matter and if it shall decide to take further action the Secretary shall send a copy of the charges to the accused member, who shall be given adequate time to reply, whereupon the Council shall take such further action as it may deem proper.

If seven members of the Council, after a fair and impartial hearing, shall be satisfied of the truth of the charges, the Council may request the offending member to resign or may suspend him or expel him. Should he decline to resign upon such request, the Council shall expel him.

## ARTICLE IV

### ENTRANCE FEES AND ANNUAL DUES

*Section 1.* The entrance fee shall be Twenty-five Dollars and the yearly dues shall be Twenty-five Dollars, payable in advance in the month of January.

*Section 2.* A member elected after the first day of July in any year, shall pay one-half of the dues for that year.

*Section 3.* Any member neglecting to pay his dues or obligations of any kind for a period of three months after they are due, provided he shall have received notice thereof, shall forfeit his rights to membership, and after one month's further notice, if such dues or obligations are still unpaid, he may be dropped from the roll of membership at the discretion of the Council. The Council is further empowered to act in any special cases which may arise relating to dues and entrance fees.

## ARTICLE V

### MEETINGS OF THE INSTITUTE

*Section 1.* The annual meeting of the Institute, for the election of members of the Council and the transaction of the general business of the Institute, shall be held on the Monday preceding the third Wednesday of January in each year.

*Section 2.* Special meetings of the Institute may be called at any time by the President, and must be called at any time by the President, or in his absence by the Vice President or Secretary, upon the written request of a majority of the Council, or upon the written request of not less than ten members of the Institute. Ten days' notice of any special meeting must be given to the members of the Institute, and the notice must state the object of the meeting.

*Section 3.* Fifteen members shall constitute a quorum at meetings of the Institute.

## ARTICLE VI

### MEETINGS OF THE COUNCIL

*Section 1.* Regular meetings of the Council shall be held on the first Wednesday of every month.

*Section 2.* The President may call a special meeting of the Council at any time and a special meeting must be called upon the written request of any two members of the Council. At least one day's notice by mail or telephone of such meeting must be given to the members of the Council and the notice must state the object of the meeting.

## ARTICLE VII

### RULES OF ORDER

At the meeting of the Institute and of the Council, the following shall be the order of business:—

1. Roll Call.
2. Reading Notice of Meeting.
3. Reading of Minutes of Preceding Meeting and acting thereon.
4. Reports of Officers and Committees.
5. Elections.
6. Unfinished Business.
7. New Business.

## ARTICLE VIII

### AMENDMENTS

*Section 1.* These By-Laws may be amended by the affirmative votes of a majority of the members voting at any regular or special meeting of the Institute, provided notice of such amendment or amendments and the nature thereof shall have been given to the members of the Institute at least one month prior to the date of the meeting at which said amendment or amendments are to be presented for consideration.

Members not present at such meeting may vote by letter addressed to the Secretary.



# CODE OF ETHICS

Adopted June 23, 1911

Amended January 16, 1921, By

## AMERICAN INSTITUTE OF CONSULTING ENGINEERS, INC.

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It shall be considered unprofessional and inconsistent with honorable and dignified bearing for any member of the American Institute of Consulting Engineers:

(1) To act for his clients in professional matters otherwise than in a strictly fiduciary manner, or to accept any other remuneration than his direct charges for services rendered his clients, except as provided in Clause 4.

(2) To accept any trade commissions, discounts, allowances, or any indirect profit or consideration in connection with any work which he is engaged to design or to superintend, or in connection with any professional business which may be entrusted to him.

(3) To neglect informing his clients of any business connections, interests or circumstances which may be deemed as influencing his judgment or the quality of his services to his clients.

(4) To receive, directly or indirectly, any royalty, gratuity or commission on any patented or protected article or process used in work upon which he is retained by his clients, unless and until receipt of such royalty, gratuity or commission has been authorized in writing by his clients.

(5) To offer commissions or otherwise improperly solicit professional work either directly or by an agent.

(6) To attempt to injure falsely or maliciously, directly or indirectly, the professional reputation, prospects or business, of a fellow Engineer.

(7) To accept employment by a client while the claim for compensation or damages, or both, of a fellow Engineer previously employed by the same client and whose employment has been terminated, remains unsatisfied, or until such claim has been referred to arbitration, or issue has been joined at law, or unless the Engineer previously employed has neglected to press his claim legally.

(8) To attempt to supplant a fellow Engineer after definite steps have been taken towards his employment.

(9) To compete with a fellow Engineer for employment on the basis of professional charges, by reducing his usual charges and attempting to underbid after being informed of the charges named by his competitor.

(10) To accept any engagement to review the work of a fellow Engineer for the same client, except with the knowledge or consent of such Engineer, or unless the connection of such Engineer with the work has been terminated.

(11) To publicly advertise his professional business in self-laudatory language or with conspicuous display.

(12) To submit proposals for or enter into contracts for the construction of works, plans and specifications for which have been prepared by him in the capacity of professional Engineer for a client.

# SCHEDULE OF FEES

RECOMMENDED BY

## AMERICAN INSTITUTE OF CONSULTING ENGINEERS, INC.

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### INTRODUCTION

It is recognized that no schedule can anticipate and provide for all contingencies which may arise in the practice of the various branches of the profession. The schedule, therefore, is necessarily far from definite, but the Council has authorized its publication, in the belief that it will be found useful for the guidance and protection of members of the profession and their clients.

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Charges for the services of Consulting Engineer are usually based upon

- A. A per diem rate;
- B. A predetermined fixed fee;
- C. A percentage of cost of the work, or
- D. Reimbursement and a percentage of cost of the work.

#### A.—PER DIEM RATE

(1) Charges for consultation, studies, opinions, reports, court proceedings and expert testimony vary, according to the magnitude and importance of the work or subject involved and the experience and reputation of the engineer, from \$100 per diem to a much higher figure. Time occupied in necessary traveling is charged for as a part of the work.

Attendance at court or expert testimony for any fraction of a day should be considered as a full day.

Where conditions of professional retainers contemplate a long engagement for general advice, the Engineer may accept such retainers upon a yearly basis, preferably at a compensation not less than that of the permanently employed engineer of the client. This refers particularly to corporations having a chief engineer in their corps.

#### B.—FIXED FEE

(2) A fixed fee for the services rendered may be charged, such fee varying according to the character, magnitude and importance of the work or subject involved and the experience and reputation of the engineer.

#### C.—PERCENTAGE OF COST OF THE WORK

(3) For preliminary examinations, surveys, studies, plans and reports on new projects, or for review, study and report on projects previously dealt with by other engineers, from  $1\frac{1}{2}\%$  to 3% or more, upon the estimated cost of the work, depending upon the character and importance of the services rendered.

*Note.*—Work of the character contemplated by this paragraph is preferably charged for upon a per diem or fixed fee basis, unless coupled with one or more of the succeeding stages cited below.

(4) For the preliminary stages of the project (3), and, in addition thereto, such investi-

gations, plans and specifications as are necessary to enable contractors to submit definite tenders for construction, from  $2\frac{1}{2}\%$  to  $5\%$ , or more, upon the estimated cost of the work.

(5) For the preliminary and secondary stages of the project, (3) and (4), and, in addition thereto final working drawings, specifications and advice, and also consultation and general advice during construction, from  $5\%$  to  $7\frac{1}{2}\%$ , or more, upon the estimated cost of the work.

(6) For the services named in (3), (4) and (5), and, in addition thereto, full professional services, including the awarding of contracts, construction management, testing of materials, inspection work, responsibility for the organization and management of the work and carrying it to completion, from  $10\%$  to  $12\frac{1}{2}\%$ , or more, upon the actual cost of the work.

(7) The range of percentage charges named in (3), (4), (5) and (6) contemplates differences in the magnitude and difficulties of the work. The lower percentages may apply to work considerable in magnitude (e. g., work costing from \$1,000,000 to \$2,000,000, or more) and comparatively free from complexity; the higher percentages to less expensive and more complex projects.

The percentages are to be computed upon the entire cost of the completed work, exclusive of engineering, or upon the estimated cost pending execution or completion.

(8) The phrase, "cost of work," as used

herein, refers only to such part or parts of the whole work or projects as the engineer may be engaged to deal with in any of its stages.

(9) The charges named in (1) and (2) relate only to compensation for personal professional services. Unless specifically exempted by agreement, it is customary to charge the client, in addition thereto, for all expenses properly incurred by reason of the engagement, including transportation and subsistence charges while away from the home office, the amounts paid assistants while engaged upon the work, supplies used, and reasonable allowance for general office expense.

The charges named in (3), (4), (5) and (6) include all expenses properly chargeable to the client, except those specifically exempted by agreement.

#### D.—REIMBURSEMENT AND A PERCENTAGE COST OF THE WORK

(10) Another approved method of computing charges is by a percentage of cost of the work to cover services of the engineer, his expenditures for assistants and for general office expense being reimbursed by the client at cost. When this method of charging is adopted, the percentages to cover services of the engineer should approximate one-half of the respective percentages specified under 'C,' reimbursement being computed from pay roll cost, with an addition of from 75% to 100% to cover "readiness for service" and general office expense.



(11) Unless otherwise agreed upon, payment for services is considered due and payable monthly on account as the work progresses. In short engagements, however, it is customary to arrange with the client for the entire payment upon completion of the engagement.

(12) It is proper for the engineer, in accepting an engagement, to require an adequate retaining fee based upon the magnitude, importance and other conditions of the engagement, this fee to be credited against the final account, unless otherwise agreed.

(13) It is desirable that upon undertaking any engagement the engineer and client should enter into a written agreement or memorandum stating as fully and clearly as practicable the conditions of the engagement, the services to be rendered by the engineer, and the amount or rate of his compensation.

(14) In case the work entrusted to the engineer is abandoned in any stage of its progress by instructions of the client, the fee due the engineer is to be determined in accordance with the extent of progress, expenses and obligations incurred, as per (3), (4), (5), (6), and (7).

(15) Contingent fees are of two kinds:

(a) Those, the payment of which, in whole or in part, is made contingent upon a successful outcome of the recommendations, opinions, or estimates of the engineer, and

(b) Those, the payment of which, in whole or in part, is made conditional upon the rendering by the engineer of certain recommendations, opinions, or estimates.

Those of the first kind, where their character will not warp, consciously or unconsciously, the judgment of the engineer to the possible injury of his client or the public, are approved. Those of the second kind are disapproved.

(16) Except in cases where the compensation of the engineer is in the form of an annual retainer, the agreement between the engineer and his client should specify the period of time during which the compensation of the engineer, as determined by per diem charges, fixed fee, or agreed percentages, shall apply. If, through no fault of the engineer, the work should not be completed within the time so specified, an additional charge may be made, the basis for which, if practicable, should be agreed upon in advance.

(17) When contracts, drawings, or specifications, legal proceedings, failure of contractors, when services in addition to those contemplated by the agreement between engineer and client are required (e. g., in connection with negotiations, legal proceedings, failure of contractors, franchises, or right-of-way), a charge for the additional work involved may be made.

# RESOLUTION ADOPTED

November 10, 1916

WHEREAS: The Constitution names as the objects of the Institute:

- I. The promotion of ethical standards;
- II. The promotion of practical efficiency in the profession of engineering;
- III. The increase of its usefulness to the public at large; and

WHEREAS, The activities of the Institute in the past to accomplish these objects have been evidenced by:

- I. The adoption of a Code of Ethics and Schedule of Fees, and the appointment of a Committee on Professional Practice and Ethics to pass upon the questions arising thereunder;
- II. The discussion at meetings of matters affecting the general welfare and status of the engineer in independent practice;
- III. The Legislation Committee advocating the appointment of engineers with executive experience to public offices of an engineering character;
- IV. The standing committees and representatives upon subjects affecting the professional and public welfare, and by membership in the Chamber of Commerce of the United States of America and the other national associations;

NOW BE IT RESOLVED, That it is the sense of this meeting that the Council continue to promote the growth and welfare of the Institute by its work in:

(a) Promoting ethical standards and passing upon questions relating to professional conduct;

(b) Seeking to establish the proper relation of the contractor or manufacturer to the engineering profession;

(c) Establishing proper conditions for engineering competition;

(d) Taking an active part in public affairs as occasion arises, in which the engineering profession is qualified to assist by its experience and training;

(e) Taking part in the broader economic questions of the country through active membership in the Chamber of Commerce of the United States of America, and by representation in the National Fire Protection Association and in Joint Committees of City Departments;

(f) Urging the appointment of engineers to public offices having in charge work of an engineering character, and upon commissions which regulate public utilities;

(g) Increasing interest in legislation affecting the engineering profession;

(h) Continuing the holding of special meetings with dinners to which shall be invited from time to time prominent representatives of such particular interests as may seem to need the acquaintanceship of engineers.

## RESOLUTION ADOPTED

October 6, 1915

BE IT RESOLVED, That the Nominating Committee be instructed, before making any nominations, to ascertain and assure itself that the proposed nominees will attend a reasonable number of Council Meetings, to the end that the Council may secure a quorum at all monthly meetings, these meetings being customarily held in downtown New York at a lunch hour.

## RESOLUTION ADOPTED

October 3, 1916

WHEREAS: The By-Laws do not specifically state that the Vice-President shall succeed to the office and title of President on the death of the latter, but custom and parliamentary law are to the effect that when the office of President becomes vacant the Vice-President automatically becomes President de facto and de jure, therefore, now be it

RESOLVED, That when the office of the President shall become vacant the Vice-President shall succeed to the title and duties thereof; and it is

FURTHER RESOLVED, That the Minutes of all Council meetings since the death of the late President, Dr. Elmer L. Corthell, be amended and corrected to read George Gibbs, President, instead of George Gibbs, Vice-President.

## RESOLUTION ADOPTED

September 14, 1921

RESOLVED, That it is the sense of the Council that the Committee on Professional Practice and Ethics is empowered and directed to take up questions that are not specifically provided for in the Code of Ethics.

# RULES AND REGULATIONS

## Governing the Election of Members

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1. Applications for membership, including the personally signed letters, should be sent to the Secretary.

2. Upon receipt of an application for membership, it shall be the Secretary's duty to note:

(a) That it conforms to Article III of the By-Laws.

(b) That the personally signed letters required thereunder accompany the application.

(c) That the proposer and seconders have personally signed the application and initialled the candidate's career.

In the absence of any part, or parts, of the above ("a," "b" or "c"), the Secretary shall secure the required information.

3. When all the requirements have been complied with, the Secretary shall then present the application to the Council. If the Council accepts the application, it shall be referred to the Committee on Admissions for examination, necessary investigation and report to the Council. If such conclusions are favorable, after consideration, the Council will customarily direct the Secretary to send a copy of the complete application to each member of the Institute at least one month previous to the date set for the election of the candidate. Any information received from the membership shall be considered confidential.

4. The election of members, under the By-Laws, "shall be by ballot of the Council." The Secretary shall prepare, and mail to each member of the Council in advance blank ballots giving the candidate's name and the date of the Council meeting at which said ballots shall be counted. At this meeting any information bearing upon the candidate's career (in accordance with paragraph 3) shall be laid before the Council. Upon consideration of such information, if any, the Secretary shall present to the Council the candidate's original application papers carrying the report of the Committee on Admissions. Balloting shall then proceed.

Adopted by the Council, February 6, 1917.

5. In the event that the proposer and three seconders cannot, from personal knowledge, initial the candidate's professional career, the Committee on Admissions may, if the candidate is well known professionally, recommend to the Council that clause "c" of paragraph 2 in respect to the initialling be waived. When an applicant is from a foreign country or for any other reason is personally unacquainted with four members of the Institute, the Committee on Admissions may, after correspondence and investigation, recommend the candidate's admission, provided, however, that such applicant is of well known professional standing and otherwise complies with the requirements of membership.

Adopted by the Council, March 8, 1920.



**Rules and Regulations as to the substance and form of inquiry relative to ethical questions that are to be submitted to the Committee on Professional Practice and Ethics**

**DUTIES**

It shall be the duty of the Committee on Professional Practice and Ethics to consider and report upon such matters as may be referred to it by the Council with special reference to:

- I. Ethical questions of general interest to the profession.
- II. Criticisms or Charges affecting the professional or personal conduct of members.

**I.**

**ETHICAL QUESTIONS OF GENERAL INTEREST**

(a) Any person, whether a member of the Institute or not, may submit to the Council questions relating to proper professional conduct or ethics, and may request an answer thereto. These questions may arise from facts or conditions occurring in practice, or be based upon hypothetical cases. The questions submitted shall be free from names, dates or localities which might identify persons involved.

(b) Questions submitted must be stated definitely and concisely. Those not conforming to this requirement may be edited by the Council or the Committee, but all the facts and circumstances, actual or assumed, affecting the substance of the question should be stated.

(c) Questions that, in the opinion of the Council, are not submitted in good faith, or that are frivolous, unimportant or improper, will not be considered.

(d) The questions submitted to the Committee by the Council shall be numbered serially, and identical serial numbers shall be used by the Committee in transmitting its findings.

(e) For the purpose of extending the usefulness of these questions and findings to the profession at large they may, with the approval of the Council, be communicated by the Secretary to other engineering organizations and to the technical press; and they shall be printed in each edition of the Year Book of the Institute.

## II.

### CRITICISMS OR CHARGES AFFECTING THE PROFESSIONAL OR PERSONAL CONDUCT OF MEMBERS

(f) Criticisms or charges of improper conduct against any member shall be addressed to the Council. The Council may also, upon its own initiative, investigate reputed violations of ethical conduct by members.

(g) Charges preferred against members must be specific and in writing, supported by the evidence upon which they are based. A copy of the charges and evidence shall be sent to the member affected and opportunity be given him to reply seriatim, in writing, and to present evidence supporting such reply. All documents shall, if practicable, be submitted in sextuple,

the original to be filed in the Secretary's office and one copy furnished each of the five members of the Committee. The Council may refer the case to the Committee with all the documents. At its discretion the Committee may request such additional data and evidence as is deemed necessary.

The Committee, after consideration, must report its findings to the Council, such findings to be signed by a majority of its members, but minority reports may be submitted.

All communications and documents submitted to the Committee shall be filed with the Committee's report to the Council.

All matters connected with such cases shall be confidential.

The Council may exercise its judgment as to whether reports of the Committee involving the conduct of, or differences between, members shall be submitted to an open meeting of the Institute.

Adopted by the Council, June 6, 1916.

# ETHICAL QUESTIONS AND ANSWERS THERETO

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## CASE 1

An engineer, A, is asked to design, estimate the cost of, and construct a bridge, based upon the surveys and data previously supplied by another engineer, B.

### *Question:*

Is it proper or wise on the part of A to accept the responsibility involved without personally investigating or verifying the accuracy or adequacy of the surveys and data supplied by B?

### *Answer:*

It would be unwise, in view of the responsibility to the client assumed by A, for him to proceed with the work without personally satisfying himself of the adequacy and accuracy of the data supplied by B, unless it were distinctly understood or stated in the terms of A's engagement that he should assume no responsibility for the correctness of the data supplied to him. Such review and verification is desirable in order to protect both the client and the engineer from the consequences of erroneous data or misunderstood conditions.

## CASE 2

An engineer, A, received a circular letter from a patent attorney, B, asking A to solicit or

turn over to B, legal work in patent cases, and offering to share B's fees with A in such cases. B gives, in this letter, the names of five engineers as business references.

*Questions:*

(a) Would it be unethical for A to accept and act on B's proposition?

(b) Is it unethical for engineers to permit the use of their names as references in business enterprises, or for the promotion of business schemes?

*Answers:*

(a) The sharing of fees or profits as compensation for soliciting engagements is regarded among engineers as unethical. This does not apply to the division of fees in cases where two or more engineers are jointly employed or engaged upon the same work.

(b) It is regarded as at least imprudent for an engineer to permit the use of his name as a reference regarding the character and responsibility of persons or business concerns for advertising purposes. The practice might lead not only to personal embarrassment, but to the discredit of the profession.

### CASE 3

An engineer is employed by a client to design, make plans for, and superintend the construction of an important work, his compensation to be based upon a percentage of the cost of the completed work. At a certain stage of the progress of the work the client decides, or is compelled,

to abandon or suspend the work, through no fault of the engineer.

*Question:*

Is the engineer entitled to claim and receive the whole amount of the fee which would be due him if the work had gone on to completion?

*Answer:*

Such contingencies should be provided for in the original agreement between engineer and client. In the absence of such a provision, and unless the circumstances should warrant a different action, and particularly where the abandonment occurs through no fault or bad faith on the part of the client, settlement upon an equitable basis for the work already done, and the expenses and obligations already incurred, would be fair and just to both parties.

#### CASE 4

A city, by public advertisement, asked for proposals from engineers to perform certain professional services, the obvious purpose being to secure the services at the lowest possible cost.

*Question:*

Should engineers recognize or take part in such public competitions for services where it is to be presumed that the lowest bidder will be engaged for the services?

*Answer:*

This method of procuring engineering services should be discouraged. It is not regarded as

ethical for reputable engineers to enter such competitions. This does not, however, apply to competitions for designs for a specific structure where such competition is properly conducted and provision is made for reasonable compensation for rejected designs.

The Institution of Civil Engineers of Great Britain, in a recent circular, urges that engineers should not enter into competition at the invitation of municipalities, because of the lack of equity, dignity, and proper compensation offered.

#### CASE 5

An engineer was employed by a client to make an investigation and report upon a specific matter relating to the client's business. In the course of the investigation the engineer made discoveries which, while foreign to the subject of his specific engagement, were so related to the business of the client as to be of great importance to him and, if disclosed, might seriously affect that business. These discoveries were mentioned in the engineer's report. The engineer, later, at his own expense, pursued the discoveries further and they appeared to be of great industrial value and scientific interest.

#### *Question:*

Does the present ethical relation of the engineer to his former client permit him to develop these discoveries for his personal use or profit, or to publish an account of them in the interest of science?

#### *Answer:*

In so far as the case presented involves ques-

tions of the proper relations between engineer and client, the Committee would reaffirm the broad general principle that the engineer should not make use of information or discoveries, or the results therefrom, obtained while in the service of the client, or in any manner adverse to the general interests of the client.

#### CASE 6

City and County authorities engaged an engineer to advise them in regard to providing increased navigation facilities, and other improvements connected therewith. The engineer made the necessary surveys and studies, recommended projects, made plans therefor, and secured the approval of them by the War Department. The projects and plans were approved and adopted by the municipal authorities and the engineer was paid his fee for the service.

Later he was recalled for further conference, represented the local authorities at public hearings, and when some changes were requested by the U. S. Assistant Engineer in charge, prepared revised plans and obtained the final approval of the War Department. He was also asked to submit a proposition to carry out as engineer the construction work, which he did on the basis of a percentage on the cost. For these later services a merely nominal fee was charged in expectation that he would be retained to carry out the work.

Shortly thereafter the authorities, without notice to him, awarded the engineering work



to a firm of local engineers upon exactly the same terms as named by the first engineer except some minor changes as to time of payments.

*Question:*

Was the action of the firm of local engineers, in securing or accepting the engagement, in accordance with correct professional conduct?

*Answer:*

Assuming that the above statement is substantially correct and full, the firm of local engineers must have known the facts of the situation, including the terms named by the prior engineer. The civil authorities must have acted with the consent, if not at the active solicitation, directly or indirectly, of the firm of local engineers. Under these circumstances it was grossly unprofessional for them to supplant the previous engineer. Section 8 of the Code of Ethics of the American Institute of Consulting Engineers declares it to be "unprofessional and inconsistent with honorable and dignified bearing" . . . "To attempt to supplant a fellow engineer after definite steps have been taken towards his employment."

While the public authorities concerned are not amenable to canons of professional ethics, and while they should not be condemned without a hearing, the facts stated seem to warrant the conclusion that commonly accepted principles of fairness and just dealing were violated by them in the action taken, presumably without notice to the engineer whose previous work they had approved.

## CASE 7

Municipalities and other organizations sometimes, by public advertisement, invite competitive designs for engineering works.

### *Questions:*

1. Is it considered proper professional conduct for engineers to enter into such competitions?
2. If question 1 is answered in the affirmative, under what conditions may engineers enter such competitions?

### *Answers:*

1. Reputable engineers generally discourage such competitions, believing that, as a rule, they do not result in benefit to either the client or the engineer. But the practice is likely to continue in some special lines of engineering work, and there appears to be no valid reason why engineers should not participate therein; *provided*, that the conditions and terms under which the competitions are to be conducted are fair and honorable.

2. Some of the conditions and terms that make it permissible for engineers to compete in such cases are the following:

That competition shall be confined to engineers of recognized good standing, preferably to a limited number designated by the client;

That proper and adequate rules and regulations to control the competition shall be submitted by the client;

That provision be made for payment to each competitor of a specified sum to cover the reasonable estimated cost of preparing a design;

That the client shall specify his wants or requirements in sufficient detail to enable the engineer to design intelligently;

That the official body, board or persons who are to pass upon the merits of the designs shall be designated in advance;

That unsuccessful designs shall remain the property of the designer and be returned to him; and that the successful competitor shall be retained as chief or consulting engineer for the construction of the work.

#### CASE 8

*Question:*

In what ways and to what extent is it considered proper for engineers to publicly advertise their professional business?

*Answer:*

It is generally accepted in the profession that advertising by engineers should be restricted to modest, brief and dignified forms, such as announcements and professional cards in the public press. Professional cards may give the name and address of the person or firm, the branch of engineering and the specialties in which he practices, and the names of the professional societies to which he belongs.

Laudatory notices, articles, or accounts of professional work in the secular press should not be inspired or encouraged by the engineer.

Approved March 6, 1917.

#### CASE 9

*Question:*

Would it be an infraction of professional

ethics for a member of an engineering commission or committee to divulge or publish the findings of the commission before its report has been agreed upon and submitted?

*Answer:*

The results of the studies or actions of an engineering commission and its findings, are to be regarded as the property of the commission and not of its members individually. It would be improper, as well as discourteous to their associates, and therefore unethical, for the individual members to divulge or publish any part of the results or findings of the commission in advance of the submission of its report, except with the official authorization or permission of the commission, and the consent of the principals involved.

Approved November 23, 1917.

#### CASE 10

The Engineer-in-Chief of a Corporation designed for it a structure and affixed his official signature to the plans therefor.

*Question:*

Is it ethical for his official successor to erase such signature and substitute his own in place thereof?

*Answer:*

Assuming that the original plans are unchanged by the successor, it would be dishonorable, and therefore a violation of professional ethics, to erase the designer's signature and substitute his own. He might properly

endorse the plans "approved by" over his own signature.

If changes in details, not requiring new drawings, are made in the original plans, the endorsement should be "approved as modified by."

Approved April 6, 1917.

## CASE II

An engineer was retained by a client to advise him in reference to an engineering project and structure. The engineer submitted with his report complete drawings of the structure recommended by him. The client, with the permission of the engineer, submitted the plans to an engineering-contracting company, inviting a proposal to do the work. With such proposal the engineering-contracting company submitted a drawing identical with that of the engineer except that a few minor details and additions were included. Upon this drawing were stamped the words "Copyrighted by X-Y" (the title of the company).

### *Question:*

Was it a violation of professional ethics for X-Y to copyright the drawings under the conditions named?

### *Answer:*

The right of X-Y to copyright plans or documents originated and prepared by them cannot be questioned. This is also true of changes made by them in the designs and drawings prepared by others; provided it is made clear

that the original plans are not their own; and that the changes or additions made by them, upon which copyright is claimed, are specifically described. In the case before us, it appears that this was not done.

X-Y had no title by authorship, ownership, or assignment to the original drawings and therefore no right to appropriate and copyright them. By copyrighting them the engineer himself is debarred from using them without their consent or compulsion. The copyright leads to the natural inference that the plans were designed and prepared wholly by them.

To copyright the drawings under these conditions, whether intentionally or inadvertently, was morally wrong, unjust and discourteous to the engineer and therefore a flagrant violation of professional ethics.

Approved June 26, 1919.

#### CASE 12

Engineer "A" is appointed to a State Board which, by legislative enactment, is required to pass upon plans, specifications and designs for certain types of municipal improvements. This Board also has jurisdiction over and is required to inspect and report upon the operation of certain types of municipal plants. This engineer, while sitting on the Board and passing upon the plans and operations of the plants mentioned, practices in the State in which the Board upon which he sits has jurisdiction, and prepares plans and specifications for plants which must be passed upon by the Board, and also installs

and operates plants, the inspection and operation of which it is the function of this Board to regulate.

*Question:*

Is it proper, or in accordance with professional ethics, for an engineer, while serving as a member of a public commission, to accept professional engagements that involve, or may involve, questions or matters that will come before the commission for official decision or action?

*Answer:*

A fairly parallel question would be: is it proper and in accordance with professional ethics for a Judge to consult with, advise, and prepare, for a client, a suit at law that is to be tried before him as presiding Judge?

The answer is as obvious in one case as in the other.

An engineer who accepts a public or quasi-public appointment under the conditions named in the statement, is thereby debarred, not only by professional ethics, but by moral obligation and sound public policy from accepting any engagement involving matters that may eventually come before him in his public capacity for consideration and decision.

Evidence of intentional violation of this principle should be sufficient cause for the discipline or removal of the offender.

Approved June 26, 1919.

### CASE NO. 13

A Consulting Engineer has a client, A, for whom he is making certain important investigations, pending which an Attorney, B, asks the engineer to accept a retainer as expert witness in a suit at law against A. The matter on which the engineer's testimony is wanted by B is totally unrelated to the matter being investigated for A.

#### *Questions:*

1. Is it proper for the engineer to accept the retainer from B?
2. If the engineer may properly accept the retainer from B, should A be advised of the acceptance of the retainer from B?

#### *Answers:*

1. While there is room for difference of opinion, from the strictly ethical point of view, the acceptance of B's retainer, under the conditions named, should be regarded as so questionable as to be unwise and improper.

2. In any event, assuming that, as stated, the matters in regard to which the engineer is employed by A and sought to be retained by B have no connection with, relation to, or bearing upon each other, the engineer should not accept B's retainer without the full knowledge and consent of both A and B.

Approved March 8, 1920.

### CASE NO. 14

A civil engineer specializing in a certain branch of professional work, is requested, through



an explanatory circular, enclosing a blank form for reply, issued by the official board of an important public enterprise, to express his views as to the design and construction of a proposed public work, in line of his special practice. No retainer or compensation is suggested and obviously none is intended. The request comes from a distant city and relates to an enterprise with which the engineer has no actual present or prospective, professional or personal connection. He declined to reply in the manner requested but called attention to the fact that there are a number of experts in this country capable of giving them sound professional advice.

*Questions:*

1. Was such a reply warranted and proper from an ethical point of view, under the conditions named?
2. Recognizing that engineers, like the members of other professions, owe to the public, as specially qualified good citizens, a certain amount of gratuitous advice and assistance in the planning and administration of works and affairs affecting the public welfare; what general principles or rules should guide their conduct in such matters?

*Answers:*

1. Such a reply was warranted under the circumstances recited.
2. It is difficult, if not impossible, to sharply define the character or extent of the professional

services that the engineer properly may or should contribute to the public without pecuniary compensation therefor. It may vary with conditions and circumstances in each individual case. The patriotic and public-spirited citizen will construe his duty in this respect liberally in favor of Nation, State, civic organizations and community. Like the members of other professions the engineer is frequently called to serve on public commissions, committees and civic organizations where his specialized knowledge and experience enables him to render services of great public value, for which no monetary compensation is provided or expected. Service of this character within proper bounds is to be commended and encouraged.

As a general rule, gratuitous professional service may properly be limited to information, advice and assistance of a general nature relating to the inception, principles involved, or the development of contemplated public enterprises. Specific recommendations, plans, details, specifications and estimates for definite projects, involving professional investigation and study should be regarded as the province of the formally retained and compensated engineer.

These functions are essentially professional in character, and involve special labor and responsibility, which the prudent engineer acting in his capacity as a citizen only, may not care and should not be expected or required to assume without the usual professional recognition and compensation. The interests of the profession, as well as his own, suggest that his generous

impulses be not allowed too great latitude, particularly in cases like the one cited, in which he has no public or community interest.

Approved January 12, 1921.

#### CASE NO. 15

Case No. 15 was laid on the table at meeting of the Council on January 12, 1921.

#### CASE NO. 16

An engineering firm, XY, inserted in the advertising pages of a prominent daily newspaper a display advertisement in large type, stating that the firm had been selected by a State Valuation Commission to ascertain the value of a public utility of the State and was then engaged upon the work.

#### *Questions:*

1. Should the insertion of such an advertisement in newspapers be considered as professional advertising?
2. Was such an advertisement a violation of professional ethics?

#### *Answers:*

1. Since the obvious purpose was to exploit the competency and high character of the firm as engineers, it was clearly a professional advertisement.
2. Advertising of this character is held to be a violation of professional ethics by the three leading professions in this country: Engineering, the Law, and Medicine.

The Code of Ethics of the American Society of Civil Engineers reads as follows:

It shall be considered unprofessional and inconsistent with honorable and dignified bearing for any member of the American Society of Civil Engineers:

6. To advertise in self-laudatory language, or in any other manner derogatory to the dignity of the Profession.

The Code of Ethics of The American Society of Mechanical Engineers contains this clause:

He should not advertise in an undignified, sensational or misleading manner.

The Code of Ethics of The American Bar Association reads:

But solicitation of business by circulars or advertisements, or by personal communications or interviews not warranted by personal relations, is unprofessional.

Indirect advertisement for business by furnishing or inspiring newspaper comments concerning causes in which the lawyer has been engaged or is engaged, or concerning the manner of their conduct, the magnitude of the interests involved, the importance of the lawyer's positions, and all other like self-laudation, defy the traditions and lower the tone of our high calling and are intolerable.

The Principles of Ethics adopted by the American Medical Association provide:

It is incompatible with honorable bearing in the profession to resort to public advertisement or private cards inviting the attention of persons affected

with particular diseases; to publish cases or operations in the daily prints, or to suffer such publications to be made; to boast of cures and remedies; to adduce certificates of skill and success or to employ any of the other methods of charlatans.

Approved January 12, 1920.

#### CASE No. 17

A firm of engineers, XY, was retained some years since by a city to make a preliminary report upon certain municipal improvements.

Recently the City Council decided to proceed with these improvements and authorized the Director of Public Service to employ XY, as engineers to design the works, which he proceeded to do upon terms mutually agreed upon.

Later, his attention was called to an opinion, rendered some years previously by the Attorney General of the State, to the effect that under the State laws and the City charter the employment of technical assistance came under the provisions of a law requiring that competitive bids must be asked for in all cases where the expenditure for services exceeded \$500. Notwithstanding doubt as to the validity of this opinion the City Authorities thought it prudent to comply, and bids for the service were asked for and received. XY submitted a bid at substantially the same rate of compensation as that agreed upon prior to the public advertisement, and while lower bids were submitted the contract was awarded to XY. Prospective bidders were given a blank

form of contract to be entered into between the Director of Public Service and the successful bidder, which XY were required to execute. This contract, as is usual in such cases, is so inequitable and unsatisfactory that under ordinary conditions, high class, responsible engineers would probably refuse to submit a bid under its provisions.

*Question:*

Considering the exceptional circumstances in this case, should the action of XY in submitting a bid for the work be regarded as professionally unethical?

*Answer:*

Regarding the practice of competitive bidding for engineering services the Committee reaffirms the principles stated in its answer to question 4:

This method of procuring engineering services should be discouraged. It is not regarded as ethical for reputable engineers to enter such competitions. This does not, however, apply to competitions for designs for a specific structure where such competition is properly conducted and provision is made for reasonable compensation for rejected designs.

Approved January 12, 1921.

The conditions in this case were so unusual as to make it exceptional. Bids for the service were asked for only to comply with an alleged legal requirement, after XY had been retained in a proper manner; and XY submitted their

bid at the same rate of compensation for the service as that in the earlier retainer.

Under the circumstances the conduct of XY should not be held as unprofessional.

#### CASE No. 18

In a case involving the respective rights of a water supply company owning the surface water rights over certain lands, and the owners of the lands, a (supposedly) friendly suit at law is instituted to determine the legal status of the parties. An engineer, employed in the inception of the water supply project, is asked by the land owners to accept a retainer as expert witness in their behalf. The engineer consulted the officials of the water company who stated that they (the water company) had intended to retain him as expert witness in their case, but that there would be no objection whatever to his testifying on the other side, since his testimony would no doubt be the same in either case. After further conference with both parties and having their assurance that his action would be satisfactory to both, he accepted the retainer of the land owners.

#### *Question:*

Was the action of the engineer in accordance with correct professional ethics?

#### *Answer:*

The circumstances in this case are somewhat unusual, and differ in some respects from those stated in Case 13, inasmuch as the suit at law is

represented as being a "friendly" one to determine the legal status of the parties thereto; and that the retaining of the engineer by one of the parties was with full knowledge and consent of the other.

The acceptance of the retainer under these conditions was permissible and should not be regarded as unethical.

Approved May 11, 1921.

#### CASE No. 19

There was printed in the advertising pages of a leading engineering periodical, a prominent advertisement reciting facts relating to an important construction project, characterized as "A record job—constructed in record time and within the estimated cost under a contract awarded to the — construction company." The advertisement concluded with the name of the construction company, "Designers and constructors of hydro-electric and steam power plants, factories, warehouses, dry docks and water terminals," followed immediately, and ending with the name of an engineering firm, XYZ, designated as "Engineers and Managers," with the names of the individual members of the firm. The form and wording warranted the inference that the corporation and firm were identical. Investigation disclosed that this is substantially the case, the two concerns, while being different and distinct organizations are practically under the same management and



control, though one member of the engineering firm has no connection with the corporation. Such being the case it is justifiable to conclude that the advertisement was authorized and approved by XYZ and that they were responsible therefor. Assuming this to be true:

*Question:*

Under the conditions stated, should the advertisement be regarded as a violation of professional ethics by XYZ?

*Answer:*

Yes.

Approved November 23, 1921.

CASE NO. 20

An engineer was retained by a client to make an examination and report, for which it was agreed that a certain definite fee was to be paid. The work was completed and report in duplicate rendered, and a partial payment on account of the fee made to the engineer; but the balance due as per agreement was not paid and remains unpaid after six years. The report having been lost or mislaid by the client, he now asks for a duplicate or data contained therein, which the engineer declines to supply until the original account shall be settled.

*Question:*

Is the engineer justified in refusing to supply the data asked for by the client until the original fee shall be paid in full?

*Answer:*

Assuming the conditions and circumstances to be fully stated the action of the engineer is justifiable.

Approved January 10, 1922.



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GARDNER S. WILLIAMS, 1917-1919.

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- ALVORD, JOHN W. (C) 1913.  
Alvord & Burdick  
Hartford Building, Chicago, Ill.
- ARNOLD, BION J. (C) 1911.  
105 S. La Salle St., Chicago, Ill.
- BAIRD, HOWARD C. 1917.  
95 Liberty St., New York City.
- BARROWS, H. K. 1920.  
6 Beacon St., Boston, Mass.
- BARTLETT, C. TERRELL, 1922.  
610 Calcasieu Bldg., San Antonio, Tex.
- BIXBY, BRIG. GENERAL W. H. 1915  
U. S. A. Retired, 1709 Lanier Place,  
Washington, D. C.
- BLACK, E. B. 1910.  
701 Mutual Building, Kansas City, Mo.
- BOLTON, REGINALD PELHAM (C) 1910.  
116 E. 19th St., New York City.
- BREITHAUPT, W. H. (C) 1913.  
66 Margaret Ave., Kitchener, Ont., Canada.
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Merchants-Laclede Bldg.,  
St. Louis, Mo.
- BROWN, THOS. E. (C) 1911.  
35 Nassau St., New York City.
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President, Ford, Buck & Sheldon, Inc.,  
60 Prospect St., Hartford, Conn.

- BURDETT, FREDERICK A. (C) 1910.  
25 West 45th St., New York City.
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402 Interstate Building, Kansas City, Mo.
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- COLPITTS, WALTER W. 1916.  
66 Broadway, New York City.
- COOLEY, MORTIMER E. 1916.  
University of Michigan,  
Ann Arbor, Mich.
- COVERDALE, W. H. (C) 1913.  
66 Broadway, New York City.
- DAVIS, CHANDLER 1920.  
59 Wall St., New York City.
- DAVIES, J. VIPOND (C) 1913.  
30 Church St., New York City.
- EDDY, HARRISON P. 1914.  
14 Beacon St., Boston, Mass.
- FAY, FREDERIC H. 1916.  
Fay, Spofford & Thorndike,  
200 Devonshire St., Boston, Mass.
- FELDMAN, A. M. (C) 1910.  
145 West 45th St., New York City

- FITZGERALD, DESMOND 1914.  
410 Washington St., Brookline, Mass.
- FRANCIS, WALTER J. (C) 1911.  
260 St. James St., Montreal, Canada.
- FRENCH, JAMES B. (C) 1911.  
50 Church St., New York City.
- FUERTES, JAMES H. 1915.  
140 Nassau St., New York City.
- FULLER, GEORGE W. (C) 1910.  
170 Broadway, New York City.
- GIBBS, GEORGE 1914.  
Gibbs & Hill,  
Pennsylvania Station, New York City.
- GOODRICH, E. P. (C) 1910.  
132 Nassau St., New York City.
- GREINER, J. E. (C) 1910.  
2008 Lexington Bldg., Baltimore, Md.
- HALLIHAN, J. P. 1920.  
143 Liberty St., New York City.
- HARRISON, EDLOW WINGATE (C) 1911.  
15 Exchange Place, Jersey City, N. J.
- HATTON, T. C. 1920.  
508 Market St., Milwaukee, Wis.
- HAZEN, ALLEN (C) 1911.  
Hazen & Whipple,  
25 W. 43d St., New York City.
- HENRY, PHILIP W. (C) 1911.  
111 Broadway, New York City.
- HERING, RUDOLPH (C) 1910.  
1 W. 70th St., New York City.
- HIDINGER, LEROY L. 1922.  
622 Goodwyn Institute Bldg., Memphis, Tenn.

- HILL, E. ROWLAND 1916.  
Gibbs & Hill,  
Pennsylvania Station, New York City.
- HILL, NICHOLAS S., Jr. 1914.  
112 E. 19th St., New York City.
- HUBBELL, C. W. 1921.  
2348 Penobscot Building, Detroit, Mich.
- HUMPHREYS, ALEXANDER C. (C) 1913.  
Stevens Institute, Hoboken, N. J.
- HUNT, A. M. 1916.  
350 Madison Ave., New York City.
- INGERSOLL, COLIN M. (C) 1910.  
167 E. 71st St., New York City.
- JACKSON, DUGALD C. 1914.  
387 Washington St., Boston, Mass.
- JOHNSON, GEO. A. 1920.  
150 Nassau St., New York City.
- KIMBALL, GEO. H. 1915.  
Pontiac, Mich.
- KINNEAR, W. S. 1920.  
111 Broadway, New York City.
- KNOWLES, MORRIS 1916.  
318 Westington Building, Pittsburgh, Pa.
- LANDRETH, O. H. 1920.  
156 Fifth Ave., New York City.
- LEAVITT, CHARLES WELLFORD (C) 1913.  
18 East 41st Street, New York City.
- LEDoux, J. W. 1920.  
112 N. Broad St., Philadelphia, Pa.
- LOW, GEORGE EVARTS (C) 1910.  
97 Warren St., New York City.
- LUCKE, CHARLES EDWARD (C) 1911.  
Columbia University, New York City.

- LUDLOW, EDWIN 1919.  
515 N. 13th St., Muskogee, Okla.
- LUDLOW, J. L. 1921.  
Winston-Salem, N. C.
- LUNDIE, JOHN 1921.  
920 Broadway, New York City.
- McCLINTOCK, J. R., 1922.  
421 Produce Exchange Bldg., Kansas City, Mo.
- MAILLOUX, C. O. (C) 1910.  
111 Fifth Ave., New York City.
- MAIN, CHARLES T. 1916.  
200 Devonshire St., Boston, Mass.
- MARKS, L. B. (C) 1910.  
103 Park Ave., New York City.
- MARX, CHAS. D. 1917.  
Stanford University, Cal.
- MASON, WM. PITT 1920.  
Troy, New York.
- MAURY, DABNEY H. 1914  
1445 Monadnock Block, Chicago, Ill.
- MEAD, DANIEL W. 1916.  
State Journal Bldg., Madison, Wis.
- MERSHON, RALPH D. 1914.  
143 Liberty St., New York City.
- MILLER, ALTEN S. 1914.  
Bartlett Haywood Co., Baltimore, Md.
- MILLER, RUDOLPH P. (C) 1910.  
100 Morningside Drive, New York City.
- MILLER, SAMUEL OSGOOD (C) 1910.  
Columbia University, New York City.
- MODJESKI, RALPH (C) 1910.  
121 East 38th St., New York City.
- MOLITOR, F. A. (C) 1910.  
143 Liberty St., New York City.

- MORAN, DANIEL E. (C) 1911.  
9 E. 45th St., New York City.
- MORSE, E. K. 1921.  
7 Wood Street, Pittsburgh, Pa.
- NEALL, N. J. 1921.  
12 Pearl St., Boston, Mass.
- NOBLE, FREDERICK C., 1923.  
101 Park Ave., New York City.
- NORCROSS, P. H. 1920.  
Chandler Bldg., Atlanta, Ga.
- PARSONS, H. de B., 1922.  
22 William St., New York City.
- PARSONS, WM. BARCLAY (C) 1911.  
84 Pine St., New York City.
- PEARSE, LANGDON 1921.  
910 S. Michigan Boulevard, Chicago, Ill.
- PERIN, C. P., 1922.  
1107 Broadway, New York City.
- PUTNAM, H. ST. CLAIR 1918.  
50 East 42d St., New York City.
- RIGGS, HENRY E. 1920.  
225 Engineering Bldg., Ann Arbor, Mich.
- RITTER, LOUIS E. (C) 1913.  
140 S. Dearborn St., Chicago, Ill.
- RUTTAN, BRIG.-GENERAL H. N. (C) 1913.  
802 Confederation Life Building,  
Winnipeg, Canada.
- SADLER, HERBERT C. 1920.  
1510 Hill St., Ann Arbor, Mich.
- SAFFORD, ARTHUR T. 1920.  
66 Broadway, Lowell, Mass.
- SEAMAN, HENRY B. (C) 1911.  
363 Grand Ave., Brooklyn, N. Y.



- SHANKLAND, E. C. (C) 1911.  
The Rookery, Chicago, Ill.
- SHAW, A. M. 1920.  
Hibernia Bldg., New Orleans, La
- SHENEHON, FRANCIS C. 1920.  
Continental & Com'l Trust Bldg., Chicago, Ill.
- SMITH, J. WALDO, 1923.  
2224 Municipal Bldg., New York City.
- SPRAGUE, FRANK J. (C) 1911.  
421 Canal Street, New York City.
- STERN, EUGENE W. (C) 1910.  
56 W. 45th St., New York City.
- STEVENS, JNO. F. 1915.  
Chase National Bank, New York City.
- STILLWELL, LEWIS B. (C) 1910.  
90 West St., New York City.
- SWAIN, GEORGE F. (C) 1910.  
Harvard University, Cambridge, Mass.
- THOMSON, T. KENNARD (C) 1910.  
50 Church St., New York City.
- TIGHE, JAMES L. 1914.  
189 High St., Holyoke, Mass.
- TURNER, DANIEL L., 1923.  
9 East 39th St., New York City.
- TYE, WM. F. 1918.  
365 St. Catherine St., Montreal, Canada.
- WADDELL, J. A. L. (C) 1910.  
35 Nassau St., New York City.
- WATERMAN, FRANK N. 1919.  
220 Broadway, New York City.
- WATSON, GEO. L. 1921.  
150 Nassau St., New York City.

- WESTON, ROBERT SPURR 1916.  
14 Beacon St., Boston, Mass.
- WHINERY, S. (C) 1910.  
203 Glenwood Ave., East Orange, N. J.
- WILEY, A. J. 1921.  
Boise, Idaho.
- WILGUS, WILLIAM J. (C) 1910.  
233 Broadway, New York City.
- WILLIAMS, GARDNER S. (C) 1912.  
Cornwell Building, Ann Arbor, Mich.
- WORCESTER, J. R. (C) 1910.  
79 Milk St., Boston, Mass.
- 

(C) Indicates Charter Member.

## CLASSIFIED LIST OF MEMBERS

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### BRIDGES

BAIRD, HOWARD C.  
BARTLETT, C. TERRELL  
BREITHAUPT, WM. H.  
BROWN, THOS. E.  
BURR, WM. H.  
BURROUGHS, H. ROBINS  
FAY, FREDERIC H.  
FRANCIS, WALTER J.  
FRENCH, JAMES B.  
FUERTES, JAMES H.  
GREINER, J. E.  
HUBBELL, C. W.  
MODJESKI, RALPH  
MORSE, E. K.  
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SEAMAN, HENRY B.  
THOMSON, T. KENNARD  
WADDELL, J. A. L.  
WATSON, GEO. L.  
WORCESTER, J. R.

### CHEMICAL

HUNT, A. M.  
MASON, WM. P.  
MILLER, ALTEN S.

### ELECTRICAL

ARNOLD, BION J.  
GIBBS, GEORGE  
HILL, E. ROWLAND

JACKSON, DUGALD C.  
MAILLOUX, C. O.  
MERSHON, RALPH D.  
NEALL, NEWITT JACKSON  
PUTNAM, H. ST. CLAIR  
SPRAGUE, FRANK J.  
STILLWELL, LEWIS B.  
WATERMAN, FRANK N.

#### GAS AND BY-PRODUCT OVENS

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MILLER, ALTEN S.  
PERIN, C. P.

#### HEATING AND VENTILATING

BOLTON, REGINALD PELHAM  
PARSONS, H. de B.  
FELDMAN, A. M.

#### HYDRO-ELECTRIC

BARROWS, H. K.  
BURNS, CLINTON S.  
FRANCIS, WALTER J.  
FUERTES, JAMES H.  
GOODRICH, E. P.  
DAVIS, CHANDLER  
JACKSON, DUGALD C.  
JOHNSON, GEORGE A.  
LANDRETH, OLIN H.  
LEDOUX, J. W.  
LUDLOW, J. L.  
MAILLOUX, C. O.  
MAIN, CHARLES T.

MAURY, DABNEY H.  
MEAD, DANIEL W.  
NORCROSS, P. H.  
PARSONS, H. de B.  
PARSONS, WM. BARCLAY  
PERIN, C. P.  
SAFFORD, ARTHUR T.  
SHENEHON, F. C.  
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WILLIAMS, GARDNER S.

#### ILLUMINATION

HUMPHREYS, ALEX. C.  
MARKS, L. B.

#### INDUSTRIAL

COLPITTS, W. W.  
COVERDALE, W. H.  
DAVIS, CHANDLER  
FAY, FREDERIC H.  
FULLER, GEORGE W.  
GOODRICH, E. P.  
HENRY, PHILIP W.  
JACKSON, DUGALD C.  
KINNEAR, W. S.  
LANDRETH, OLIN H.  
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NEALL, NEWITT JACKSON  
PARSONS, WM. BARCLAY  
SPRAGUE, FRANK J.

### IRRIGATION

BARTLETT, C. TERRELL  
HALLIHAN, J. P.  
HIDINGER, LEROY L.  
HILL, NICHOLAS S., JR.  
JOHNSON, GEORGE A.  
LANDRETH, OLIN H.  
MARX, CHAS. D.  
MEAD, DANIEL W.  
PARSONS, H. de B.  
SHAW, ARTHUR M.  
WILEY, A. J.

### LANDSCAPE AND CITY PLANNING

FUERTES, JAMES H.  
GOODRICH, E. P.  
KNOWLES, MORRIS  
LEAVITT, CHARLES WELLFORD  
MORSE, E. K.  
PARSONS, H. de B.

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BOLTON, REGINALD PELHAM  
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COOLEY, MORTIMER E.  
FELDMAN, A. M.  
GIBBS, GEORGE  
HILL, E. ROWLAND  
HILL, NICHOLAS S., JR.  
HUNT, A. M.  
JACKSON, DUGALD C.  
LUCKE, CHARLES EDWARD

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MAURY, DABNEY H.  
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MILLER, ALTEN S.  
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PUTNAM, H. ST. CLAIR  
SPRAGUE, FRANK J.  
STILLWELL, LEWIS B.  
WATERMAN, F. N.

#### MINING

CHANNING, J. PARKE  
LUDLOW, EDWIN  
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WATSON, GEO. L.

#### RAILROADS

ARNOLD, BION J.  
BROWN, BAXTER L.  
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COVERDALE, W. H.  
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FUERTES, JAMES H.  
GIBBS, GEORGE  
GOODRICH, E. P.  
HALLIHAN, J. P.  
HENRY, PHILIP W.  
HILL, E. ROWLAND  
INGERSOLL, COLIN M.  
KIMBALL, GEO. H.  
KINNEAR, W. S.  
LUNDIE, JOHN

MAILLOUX, C. O.  
MOLITOR, F. A.  
MORSE, E. K.  
PARSONS, WM. BARCLAY  
PUTNAM, H. ST. CLAIR  
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SEAMAN, HENRY B.  
SHAW, ARTHUR M.  
SPRAGUE FRANK J.  
STILLWELL, LEWIS B.  
SWAIN, GEO. F.  
STEVENS, JNO. F.  
TYE, WM. F.  
WADDELL, J. A. L.  
WILGUS, WILLIAM J.

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ALVORD, JOHN W.  
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DAVIS, CHANDLER  
FAY, FREDERIC H.  
FUERTES, JAMES H.  
GOODRICH, E. P.  
HIDINGER, LEROY L.  
HUBBELL, C. W.  
KNOWLES, MORRIS  
LANDRETH, OLIN H.  
MARX, CHAS. D.  
PARSONS, H. de B.  
PARSONS, WM. BARCLAY



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THOMPSON, T. KENNARD  
WILLIAMS, GARDNER S.

## STREET AND HIGHWAY

BROWN, BAXTER L.  
DAVIS, CHANDLER  
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HENRY, PHILIP W.  
HILL, NICHOLAS S., JR.  
HUBBELL, C. W.  
KNOWLES, MORRIS  
LUDLOW, J. L.  
MORSE, E. K.  
SEAMAN, HENRY B.  
STERN, EUGENE W.  
WATSON, GEO. L.  
WHINERY, S.

## STRUCTURAL AND ARCHITECTURAL

BAIRD, HOWARD C.  
BREITHAUP, WM. H.  
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BUCK, HENRY ROBINSON  
BURDETT, FREDERICK A.  
DAVIS, CHANDLER  
FAY, FREDERIC H.  
FRANCIS, WALTER J.  
FRENCH, JAMES B.  
GOODRICH, E. P.  
GREINER, J. E.

LOW, GEORGE EVARTS  
MAIN, CHARLES T.  
MILLER, RUDOLPH P.  
MILLER, SAMUEL OSGOOD  
MORSE, E. K.  
RITTER, LOUIS E.  
SHANKLAND, E. C.  
STERN, EUGENE W.  
SWAIN, GEORGE F.  
WORCESTER, J. R.

#### SUBWAYS AND DEEP FOUNDATIONS

DAVIES, J. VIPOND  
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FUERTES, JAMES H.  
GOODRICH, E. P.  
HUBBELL, C. W.  
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LOW, GEORGE E.  
MODJESKI, RALPH  
MORAN, DANIEL E.  
MORSE, E. K.  
NOBLE, FREDERICK C.  
PARSONS, WM. BARCLAY  
RITTER, L. E.  
SEAMAN, HENRY B.  
SWAIN, GEO. F.  
TURNER, DANIEL L.  
THOMSON, T. KENNARD  
WADDELL, J. A. L.  
WATSON, GEO. L.

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DRAINAGE

ALVORD, JOHN W.  
BARROWS, H. K.  
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BLACK, E. B.  
BUCK, HENRY ROBINSON  
BURNS, CLINTON S.  
BURR, WM. H.  
CHESTER, JOHN N.  
DAVIS, CHANDLER  
EDDY, HARRISON P.  
FITZGERALD, DESMOND  
FRANCIS, WALTER J.  
FUERTES, JAMES H.  
FULLER, GEORGE W.  
HARRISON, EDLOW WINGATE  
HATTON, T. CHALKLEY  
HAZEN, ALLEN  
HERING, RUDOLPH  
HIDINGER, LEROY L.  
HILL, NICHOLAS S., JR.  
HUBBELL, C. W.  
JOHNSON, GEORGE A.  
KNOWLES, MORRIS  
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LEAVITT, CHARLES WELLFORD  
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NORCROSS, P. H.  
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SHAW, ARTHUR M.  
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